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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,882	05/31/2000	Yusaku Fujii	1460.1006	1929

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EXAMINER

TRAN, TONGOC

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/583,882	<b>Applicant(s)</b> FUJII ET AL.	
	<b>Examiner</b> Tongoc Tran	<b>Art Unit</b> 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-6 is/are allowed.  
6) ☒ Claim(s) 7-15 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/27/2004</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is in response to Applicants' amendment filed on 9/21/2004.  
Claims 16-26 are cancelled. Claims 1-15 are pending.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 8/27/2004 has been considered by the Examiner.

#### ***Response to Arguments***

3. In response to Applicant's remark to rejection under 35 U.S.C. 102:

In response to Applicant's remark referring to independent claims 7, 9, 11 and 9-12, Applicant contends that Buffam fails to teach providing the arithmetic conversion and the scramble of said physical characteristic information. Examiner respectfully disagrees. Buffam teaches using encryption methods such as symmetric encryption or asymmetric encryption to encrypt physical characteristic information which is inherently required arithmetic conversion and scrambling of data (e.g. col. 8, line 53-col. 9, line 5). The same argument applies to Applicant's remark that Buffam fails to teach the reverse of scrambling (or encrypting) by descrambling (or decrypting) the scramble physical characteristic information by removing each element from each component constructing the result of decryption, in which each element is effected at the time of scrambling, by a plurality of components that has a predetermined relationship with said each component as recited in claim 8.

In response to Applicant's remark to rejection under 35 U.S.C. 103:

In response to claims 13 and 14, Applicant contends that "neither Buffam and Raike, individually or combined, does not disclose or suggest that when in case of the data concerning physical characteristic information are stolen, there is a problem that a user will not be able to use the system of being authorized by using his or her physical characteristic information, just because physical characteristic information is, by nature, permanent...". Raike teaches that if a private key is stored anywhere in a computer or data storage system, physical security becomes an important issue (col. 31, lines 3-8). Raike also teaches that password which is reside solely in human memory can be used to generate key in encryption process. Therefore, with Raike's teaching of generating an encryption key from a password, since password is one of the acceptable credential for authenticating a user's identity. It would have been obvious to modify Buffam's physical characteristic information encrypted with public or secret key with Raike's teaching of encryption key derived from password to further securely protect and uniquely identify individual's credential.

Applicant's arguments, see pages 10-11, with respect to rejection under U.S. C. 103 Buffam in view of Reeds have been fully considered and are persuasive. The rejection of claims 1-6 has been withdrawn.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Buffam (U.S. Patent No. 6,185,316).

In respect to claim 7, Buffam discloses a cryptographic method comprising the steps of:

“receiving physical characteristic information representing a characteristic inherent to an individual (see col. 8, lines 5-7);

arithmetically converting each component of said physical characteristic information by using a predetermined function concerning said each component and a plurality of components having a predetermined relationship with said each components having a predetermined relationship with said each component, to scramble said physical characteristic information (see col. 8, lines 1-11 and col. 14, lines 30-44); and

encrypting the scrambled physical characteristic information by using the predetermined cryptographic key” (see col. 8, lines 5-11 and col. 14, lines 30-44).

In respect to claim 8, Buffam discloses a decryption method comprising the steps of:

“receiving a cryptogram which is an encryption of scrambled physical characteristic information (see col. 8, lines 29-33) ;

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decrypting said cryptogram by using the predetermined cryptographic key and obtaining said scrambled physical characteristic information (see col. 8, lines 29-39 and col. 14, lines 30-44); and

descrambling said scrambled physical characteristic information by removing each element from each component constructing the result of decryption, in which each element is effected at the time of scrambling, by a plurality of components that has a predetermined relationship with said each component (see col. 8, lines 29-39).

Claims 9-10 are apparatus claims that are substantially equivalent to method claims 7 and 8, respectively. Therefore claims 9-10 are rejected by a similar rationale.

Claims 11-12 are computer readable medium claims that are substantially equivalent to claims 7 and 8, respectively. Therefore claims 11-12 are rejected by a similar rationale.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buffam (U.S. Patent No. 6,185,316) in view of Raike (U.S. Patent No. 5,799,088).

In respect to claim 13, Buffam discloses a remote identification system comprises "a client-side equipment and server-side equipment (see col. 23, lines 1-7), wherein:

said client-side equipment comprising inputting means for inputting physical characteristic information representing a characteristic inherent to an individual (see col. 11, line 58-col. 12, line 3);

proof information inputting means for inputting information including identifier or identifying an individual and a password (see col. 2, lines 31-45);

outputting means for outputting authenticating information generated from said cryptogram and said identifier (see col. 8, lines 28-39);

said server-side equipment comprising registering means for registering password and reference data which is obtained by measuring a physical characteristic corresponding to each individual, relating to given identifier corresponding to each person (see col. 11, line 58-col. 12, line 3);

receiving means for receiving authenticating information consisting of said cryptogram and said identifier (see col. 8, lines 28-39);

retrieving means for retrieving a relating password and reference data from said registering means in accordance to received identifier (see col. 8, lines 5-11);

decrypting means for decrypting said received cryptogram by using a random numeric key retrieved by said retrieving means as a cryptographic key and obtaining a physical characteristic information (see col. 8, lines 28-39); and

examining means for examining whether or not said physical characteristic information and retrieving reference data are equivalent (see col. 2, lines 31-45).

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Buffam discloses encrypting means for encrypting said physical characteristic information using a random numeric key and a predetermined primary key as a cryptographic key and outputting random numeric key as a cryptographic key and outputting a cryptogram (see col. 8, lines 1-11) but does not disclose using a password as a cryptographic key.

Raike discloses using a password to generate a cryptographic key (see col. 31, lines 3-17). It would have been obvious to modify Buffam's physical characteristic information encrypted with public or secret key with Raike's teaching of encryption key derived from password to further securely protect and uniquely identify individual's credential.

In respect to claims 14-15, the limitations are similar to claim 13 and therefore are rejected by the similar rationale.

#### ***Allowable Subject Matter***

7. Claims 1-6 are allowed.

The following is an examiner's statement of reasons for allowance:

The art of record, either singular or in combination fails to teach generating an auxiliary code for decrypting the cryptographic key, from the encrypted physical characteristic information and the numeric key.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably



accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tongoc Tran whose telephone number is (571) 272-3843. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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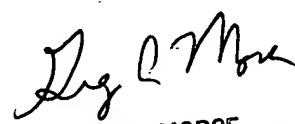
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Examiner: Tongoc Tran  
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TT



December 20, 2004

  
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SUPERVISORY PATENT EXAMINER  
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